

ANDHRA UNIVERSITY

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UNIVERSITY
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All Official letters, packages etc,
should be addressed to the
Registrar by designation and
not by name.

No.L I(2)/Foun. Course/Syllabus/2011.

Visakhapatnam
Dt: 06-04-2011

From: **The Registrar.**

To
The Principals,
Andhra University Affiliated Colleges (UG),

Sir,

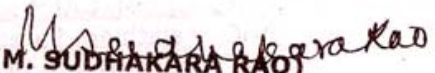
Sub: B.A./B.Com./B.Sc./B.B.M./B.C.A. and B.Sc. Home Science degree
courses - Foundation Course - Forwarding of syllabus - Regarding.

- Ref: 1. Recommendations of the Committee constituted for preparation of
syllabus of Foundation Course held on 21-03-2011 in the Chamber
of Dean, Academic Affairs, Andhra University, Visakhapatnam.
2. Orders of the Vice-Chancellor dated 21-03-2011.

With reference to the above subject, I am herewith forwarding a copy of the
Syllabus and Scheme of Examination of Foundation Course-II of III year
B.A./B.Com./B.Com. (Vocational)/B.Sc./B.B.M./B.C.A and B.Sc. (Home Science) Courses
with effect from the admitted batch of 2009-2010.

I request you, to kindly arrange to circulate same to the teaching staff & students
concerned.

Yours faithfully,


(M. SUDHAKARA RAO)
Assistant Registrar (Academic)

Copy to:

1. The Dean of Academic Affairs,
2. The Dean of Examinations (UG), AU., VSP.
3. The Special Officer (Confidential), A.U., VSP.
4. The Director, School of Distance Education, A.U., VSP.
5. The Special Registrar/Controller of Examinations, A.U., VSP.
6. E.I, E.II, E.III, E.IV. & E.VI Sections for information.
7. The Secretary to Vice-Chancellor & P.A. to Registrar, AU.
8. S.I. Section with five copies of syllabus for taking necessary further action.

**For all B.A./B.Sc./B.Sc. (Home Science)/B.Com./B.B.M./
B.C.A. courses as core subject
SCIENCE, TECHNOLOGY AND DEVELOPMENT**

(Foundation Course-II (SCIENCE, TECHNOLOGY AND DEVELOPMENT)

at the end of Third Year Undergraduate Programme)
With effect from 2011-2012.

UNIT-1: SCIENCE

1. **EARTH SYSTEM**: Characteristic features - Lithosphere, Hydrosphere - Atmosphere, Lithosphere - Soil characteristics, texture, fertility and its control. Hydrosphere - Hydrological cycle - water bodies - ponds, lakes, rivers and their characteristics - Water consumption at global level and regional level - Management of water bodies.

Atmosphere - Troposphere, Stratosphere, Ionosphere Composition of air - Ozone - Ozone layer - its importance.
2. **LIFE SCIENCES** - Concept of origin life - Evolution and diversity of life- Cell- Molecular basis of life and living forms - Mendelian concepts on inheritance - its impact on society - Blood - Blood groups - transfusion - Wild life and its conservation.
3. **CHEMICAL SCIENCE** - The definitions, general awareness and importance of
 - (i) **DRUGS**- Antibiotics, Penicillin, Tetracycline, Sulpha Drugs, Anti Malarial, Anti Pyretics, Analgesics.
 - (ii) **SOAPS AND DETERGENTS** - Sources - mechanism of soap action - development of detergents - applications - disadvantages of detergents.
 - (iii) **PLASTICS AND POLYMERS** - Polyethylene, Polyvinylchloride (PVC), nylon 66 - rubber and synthetic rubber.
 - (iv) **AGRO CHEMICALS AND FERTILIZERS** - Pesticides - Introduction - DDT, BHC, Malathion, Parathion - Fungicides - Rodenticides, Weedicides. Nitrogen and Phosphorus fertilisers - Micro fertilizers, Bio-pesticides, neem and bacillus thuringensis.
 - v. **BIO FERTILISERS** - Applications and their affects on nature.
 - (vi) **VITAMINS** - Natural sources - importance - deficiencies.

(Structures and preparation methods for the syllabus mentioned in (i) to (iv) are excluded).

UNIT-2: TECHNOLOGY AND DEVELOPMENT

1. **Communication** – Definition, nature and concept of communication – role of communication in society.

Types of Communication – Intrapersonal, Interpersonal, group and mass Communication. Traditional and folk forms of communication in India New Media technologies – Satellite, Cable and Internet.

Process of Communication – Functions of communication, elements and barriers of communication.

Mass Media – Press, Radio, TV and Films, Functions of Mass Communication.

Transport – Wheel, Steam Engine, Automobile, Ship, Airplane. Comparison of Road, Rail, Water and Air transports in terms of infrastructure, speed, cost etc.

2. **Energy** – Sources – Renewable sources of energy – Non-renewable sources of energy – Conventional energy sources – non conventional energy – Wind, water, tidal, solar, geothermal, atomic energy, biofuels – sources and their applications – Energy management – Energy Conservation – Future needs of energy.
3. **Health** – Problems – Sex education – Venereal Diseases, AIDS, General Protozoan, Bacterial & Viral diseases.
4. **Bio-technology** – Introduction – Applications – health and Human welfare – Agriculture – Mushroom culture – Medical Plants.
5. **Green Revolution**: Introduction – Types of crops developed in green revolution.
6. **Food Technology** – Introduction – Food Processing – Methods of processing – Food preservation and methods of preservation.
7. **National Institutions (Science)** – Institutions Imparting Education – Institutions performing research and development – Role of Scientific Institutions in Research, Technology and Development.

Scheme of examination and eligibility criteria to teachers

1. The foundation course-II paper namely Science and Technology & Development will have year end examination at the end of III year for seventy (70) marks in theory and thirty (30) marks for internal assessment. Internal Assessment through submission of assignment twenty (20) marks and viva-voce ten (10) marks. This is done by the teaching and marks may be submitted to the University.
2. **Teaching Eligibility:** Any faculty member with 55% (B+) marks in disciplines of Physics, chemistry and Life Sciences is eligible to teach the paper.
3. Evaluation of Answer scripts can be done by any of the above members who have taught the paper during the academic year.